

REMARKS

Claims 1-2, 4, 6, and 8-13 are pending. No new matter has been added. The rejections of the claims are respectfully traversed in light of the following remarks and reconsideration is requested.

Rejections Under 35 U.S.C. § 103

Claims 1-2, 4, 6, and 8-13 are rejected under 35 U.S.C. § 103(a) as being obvious over Affolter, et al. (WO 1997/43885, now U.S. Patent No. 6,190,181) in view of Prival (U.S. Patent No. 3,251,121).

Applicant traverses the rejection and submits that the cited references do not disclose or suggest the combination of the elements as recited in the claims.

No Basis for Combination of Affolter, et al. with Prival

Applicant agrees with the Examiner that “Affolter et al. lack a layer of highly electrically conductive material resistant to solder deposition wherein the layer consists of gold containing a small amount of silver, containing no palladium, and is formed at least over a conductive contact part of the compression coil spring so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted” (Office Action, pages 3-4) as recited in Claims 1, 9 and 10. Affolter, et al. discloses an attachment base consisting of a “plurality of connection fingers” (Affolter, et al., col. 1, lines 7-8) that are “detachably attached to a first electric component” (Affolter, et al., col 1, lines 10-11) yielding a “reliable contact” (Affolter, et al., col. 2, lines 20-21, 25-27). Affolter, et al. is thus directed to the problem of forming a detachable but reliable contact between the fingers of the electrical component and the attachment base. Affolter, et al. does not teach the problem of solder deposition on a contact member.

Prival also does not teach the problem of solder deposition on contact members. Instead, Prival discloses reed-type switch contacts with “very low and stable resistance and no tendency to stick” (Prival, col. 3, lines 20-21). Thus, Prival discloses the reduction of sticking between reed contact ends of like material. In other words, Prival discloses reduction of sticking between two substantially identical reeds. (*See, e.g.* Prival, col. 2, lines 47-53, col. 2, line 65 - col. 3, line 4, col. 3, lines 68-71, FIG. 1). Reducing the tendency of like materials to stick is not equivalent to a contact member being resistant to an unlike material, namely

solder deposit. Instead, Prival discloses the use of a gold-silver alloy for an entirely different purpose: “to significantly reduce the ... high contact resistance and/or sticking of the contact in reed-type switches and relays.” (Prival, col. 3, lines 35-38). Thus there is no basis, motivation or suggestion for combining or modifying Affolter, et al. with Prival.

Prival Teaches Away From the Recited Claims

Additionally, Prival teaches away from the use of highly electrically conductive material resistant to solder deposition under common contact conditions. Assuming *arguendo* that combining or modifying Affolter, et al. with Prival is proper, the Examiner states, “... it would have been obvious to one having ordinary skill in the art at the time the invention was made to cover the contact element with a layer of gold-silver alloy as taught by Prival.” (Office Action, page 3). However, Prival discloses the following:

The gold-silver alloy, when enclosed in an oxygen-free atmosphere, is found to have substantially ideal properties, that is, very low and stable resistance and no tendency to stick. It is further significant to note that gold-silver alloys are not completely satisfactory contact metals for use in the open air since tarnishing or corrosion may be sufficiently troublesome to limit their use to contacts in which an effective wiping action of the contacting surfaces on each other takes place and maintains the surfaces in a clean condition. (Prival, col. 3, lines 18-27) (emphasis added).

Thus, Prival discloses the use of a gold-silver alloy for reed switches in an oxygen-free atmosphere. Accordingly, Prival teaches away from using a gold-silver alloy in common conductive contact conditions as encompassed by the present invention. Even if Affolter, et al. were combined with Prival neither teach the problem of solder deposition on a contact member.

Non-Analogous Art

Applicant also submits that a person of ordinary skill in the claimed art would not look to Prival and its related art to solve the problem treated by the claimed invention and that Prival is directed toward nonanalogous art remote from the claimed invention. Prival is wholly unrelated to “a conductive contact member for establishing a temporary electric contact by being applied under a resilient force to an object to be contacted that includes solid solder” as recited in independent Claims 1, 9, and 10. Thus, there is no teaching or suggestion in Affolter, et al. and Prival for combining or modifying the references.

Applicant thus submits there is no teaching or suggestion in Affolter, et al. and Prival (*i.e.* there is no basis in the art) for combining or modifying Affolter, et al. with Prival and that Prival does not remedy the deficiencies of Affolter, et al. noted above.

In contrast, Claim 1 recites a “conductive contact member comprising a compression coil spring formed of a wire with a layer of highly electrically conductive material resistant to solder deposition, wherein the layer consists of gold containing a small amount of silver, contains no palladium, and is formed at least over a conductive contact part of said compression coil spring so that said conductive contact part of said compression coil spring may not be contaminated by deposition of solder from said object to be contacted.”

Claim 9 similarly recites a “conductive contact member comprising a compression coil spring formed of a wire with a layer of highly electrically conductive material resistant to solder deposition, wherein the layer consists of an alloy of gold added with silver, contains no palladium, and is formed at least over a conductive contact part of said compression coil spring so that said conductive contact part of said compression coil spring may not be contaminated by deposition of solder from said object to be contacted.”

Claim 10 similarly recites a “conductive contact member comprising a compression coil spring formed of a wire with a layer of highly electrically conductive material resistant to solder deposition, wherein the layer consists of a homogeneous mixture of gold added with silver, contains no palladium, and is formed at least over a conductive contact part of said compression coil spring so that said conductive contact part of said compression coil spring may not be contaminated by deposition of solder from said object to be contacted.”

Claims 2, 4, 6, and 11 are dependent on Claim 1 and contain additional limitations that further distinguish them from Affolter, et al. in view of Prival. Therefore, Claims 2, 4, 6, and 11 are allowable over the cited references for at least the same reasons provided above with respect to Claim 1.

Claims 12 and 13 are dependent on Claims 9 and 10, respectively, and contain additional limitations that further distinguish them from Affolter, et al. in view of Prival. Therefore, Claims 12 and 13 are allowable over the cited references for at least the same reasons provided above for Claims 9 and 10, respectively.

In view of the foregoing, Applicant respectfully requests that the rejections under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

For the above reasons, Applicants submit that all pending Claims 1-2, 4, 6, and 8-13 are now in condition for allowance and allowance of the Application is hereby solicited. If the Examiner has any questions or concerns, the Examiner is hereby requested to telephone Applicants' Attorney at (202) 654-4500.

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